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ABSTRACT

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Parent-Child Relationships and Effective Academic Motivation

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ABSTRACT

Among 233 boys and 300 girls, all teenagers, it was found that traits related to achievement from the Test of Effective Academic Motivation were related to parent-child relationship factors from the Children's Report of Parental Behavior Inventory. For both sexes, parents who were perceived as being more Acceptant and as using less Hostile Psychological Control tended to have children with higher achievement traits. This was especially true for the traits of Obedient and Law Abiding, Works Hard and Effectively, and Ambitious. For boys, but not for girls, parental Firm Discipline was also associated with these achievement traits. There were no statistically significant differences between the correlations observed between same-sex and opposite-sex parent-child relationships and the achievement related traits.

Parent-Child Relationships and Effective Academic Motivation

The relationships between child-rearing practices and the achievement motivation and achievement behavior of children have been the subject of considerable research interest among sociologists and psychologists as well as among educators. Educators have been especially interested in the parental qualities which affect high and low scholastic achievement. In particular the concern has been with examining parental variables which might explain the differences in scholastic achievement from predicted achievement based on scholastic ability sometimes called "over" or "under" achievement (Raph, Goldberg, Passow; 1966). Sociologists, on the other hand, have concentrated on the relationship between social class, race, ethnicity, and other demographic characteristics on achievement motivation and behavior (Rosen, 1956).

Among psychologists, a group of researchers inspired by McClelland's work (Atkinson, 1958; Atkinson & Raynor, 1974; McClelland, Atkinson, Clark, & Lowell, 1953; and McClelland, Baldwin, Bronfrenbrenner & Strodbeck, 1958) have focused their efforts on developing reliable and valid measures of need for achievement (n-Ach) and to studying its antecedents, correlates, and consequences. In the McClelland group, Winterbottom (1958) has shown the greatest interest in studying the relationship between child-rearing practices and need for achievement. Using a projective measure of need achievement with eight year old boys she found that the mothers of the high achieveing boys reported making demands for independence and achievement

earlier than mothers of low achieving boys. Furthermore the mothers of the high achieving boys gave more frequent and larger rewards to their children when they displayed such behaviors.

In the past, studies of the relationship between achievement behaviors and child-rearing practices have not yielded consistent findings. A group of studies have found that positive parental qualities such as acceptance, praise, warmth, interest, and giving children a strong voice in decision making are positively related to high academic achievement (Strodbeck, 1958; Kimball, 1952, 1953; Tibbetts, 1955; Hiegler, 1957; and Gilmore, 1951).

However a smaller group of studies have shown that negative qualities of parents such as hostility, rejection, authoritarianism, and restriction tend to be associated with high achievement in some groups (Drews & Tedhan, 1957; McClelland, 1953, Burgess, 1953; and Eckert, 1935). To add to the complexity of the problem some studies found that negative parental attitudes were associated with high achievement motivation and behavior at certain stages of a child's life but that at other stages positive parental attitudes played the major role (McClelland, 1953).

Most of the studies described previously have used boys or male college students as subjects. The relationship between parent-child interaction and achievement motivation and behavior in girls or women is a relatively unresearched area. The few studies which are available were done years ago and do not take into account recent changes in achievement expectations for girls. Crandall, Dewey, Katkovsky, and Preston (1964) found that mothers of academically competent elementary school girls (high scorers on reading and arithmetic achievement tests) were less affectionate and less nurturant toward their daughters than were the mothers of the girls who were less proficient. The fathers of the high performing girls

tended to praise and reward their daughters intellectual efforts more often than did the fathers of the low achieving girls. The high achieving girls' fathers criticized and scolded them less. Many of the studies done on males underscore how important an acceptant, non-domineering, positive relationship with the father is to the development of high achievement motivation and behavior (Kimball, 1953; McClelland, 1953).

The present study centered on the relationships between child-rearing practices and the academic motivations of boys and girls. The parent-child relationships instrument used was the Children's Reports of Parental Behavior Inventory (CRPBI) developed by Schaefer (1965). Academic motivation was operationalized by the Test of Effective Academic Motivation (TEAM) developed by Gene Smith (1970). The CRPBI was factor analyzed and reduced to three factors for the father and to three for the mother. These factors were "Hostile Psychological Control","Acceptance vs. Rejection" and "Lax Discipline vs. Firm Control". The TEAM produced seven scales related to academic motivation. Further information about these instruments is given later.

The hypotheses investigated were that the Acceptance factor should be positively associated with higher levels of academic achievement while Lax Discipline and Hostile Psychological Control should be associated with lower levels of achievement motivations. It was also hypothesized that the child's relationship to the same sex parent would be more important than it was to the opposite sex parent.

Method

Subjects

The sample for this study was drawn from participants in an extensive study of families in four suburban communities near Boston (Nuttall & Nuttall, 1975). The 537 families involved in the study were white, intact, middle to upper class with either large or small numbers of children. Some 49 percent of the mothers worked either full or part-time. The study was focused on family size and child spacing effects. Small families were defined as consisting of two children and large families as having five or more. All the children involved in the study were teenagers attending either junior or senior high school. The present analysis included 233 boys and 300 girls.

Instruments and Procedures

In order to obtain more valid information, parent-child relationships were measured using the child's perceptions. Measures of parent-child relationships obtained from parents are biased by many factors, among them their desire to portray themselves in the most favorable light. Children are more candid. Furthermore, regardless of how a parent actually treats a child, it is the child's perceptions of the nature of the interaction which is most important.

Parent-child relationships were operationalized using Schaefer's (1965) Children's Reports of Parental Behavior Inventory (CRPBI). This instrument uses the same items to apply to parents of either sex and can be filled out by boys as well as girls. The CRPBI consists of 18 scales, each either 16 or 8 items long, measuring a variety of aspects of parent-child relationships.

Each item presents a parental behavior item which the child then reports as "like", "somewhat like", or as "not like" his parent. Separate factor analyses of the 18 scales for the mothers and for the fathers revealed three factors very similar to those found in previous analyses using the CRPBI. These factors were labeled: Hostile Psychological Control, Acceptance vs. Rejection, and Lax Discipline vs. Firm Control. These three factors for the fathers and the same three factors for the mothers constituted the measures of the parent-child relationships used in this study.

Academic motivation was operationalized with the Test of Effective Academic Motivation (TEAM) developed by G. Smith (1970). This is a self report questionnaire of 300 items which contains measures of the following personality factors related to academic achievement: a) Obedient and Law Abiding, b) Works Hard and Effectively, c) Feels Capable, d) Confident Academically, e) Self-Sufficient, f) Likes School and Intellectual Activities, and g) Ambitious. These factors comprise those aspects of personality which have been found to be dependably related to academic performance. This questionnaire has been administered to 37 samples, totaling 5,777 people (Smith, 1970) and the scores have been correlated with grade point average with very positive results. A multiple regression analysis using a sample of student nurses showed that the accuracy of estimation (R^2) of grade point average was doubled by adding the TEAM scores to a prediction equation comprised of SAT-Verbal, SAT-Mathematical, and High School Rank. (Smith, 1970).

Results

Results for the Boys

This study postulated that boys who perceived their parents, especially their fathers, as Acceptant, Firm in Discipline, but low on Hostile Control would tend to possess more of those personality qualities which characterize high achieving young adults. In order to test these hypotheses, correlational analyses were conducted between the various achievement variables of the TEAM and the Hostile Psychological Control, Acceptance vs. Rejection, and Lax Discipline vs. Firm Discipline factors of the CRPBI. These results are presented in Table 1.

Insert Table 1 about here.

These results are in the directions predicted. All of the correlations between the academic achievement related traits and Hostile Psychological Control are negative, while 14 of the 16 correlations with Acceptance are positive and 15 of the 16 correlations with Lax Discipline are negative. Of the possible 48 correlations, 45 are in the predicted directions. With 233 units of analysis correlations of .13 or greater are significant at the .05 level or beyond. Of the 48 correlation coefficients, 36 are significant in the predicted direction and none in the non-predicted direction. It can thus be concluded that boys who see their parents as high on Hostile Psychological Control tend to have less positive

Table 1

Correlation Coefficients between CRPBI Factors and TEAM Variables among Boys[a]

Team Variables	Hostile Psych. Control		Acceptance		Lax Discipline	
	Mo	Fa	Mo	Fa	Mo	Fa
Feels Valued	-.23	-.30*	.21	.18	-.08	-.10
Obedient, Law Abiding	-.19	-.28*	.24	.40*	-.35*	-.26
Works Hard & Effectiv.	-.18	-.25	.30*	.33*	-.30*	-.20
Feels Capable	-.32*	-.28	.23	.26	-.14	-.06
Confident Academically	-.00	-.15	.13	.19	-.12	-.10
Self-Sufficient	-.13	-.07	-.06	-.01	-.09	.04
Likes School	-.18	-.28*	.26	.30*	-.15	-.10
Ambitious	-.14	-.20	.25	.23	-.32*	-.27

[a]n = 233 boys

* p .001

achievement oriented personality traits. When the correlations between the Hostile Psychological Control factor of the CRPBI with the eight TEAM achievement oriented traits were averaged using the r to z transformation, the average correlation was -.17 for mother's and -.23 for father's Hostile Psychological Control. Using a test for the significance of the difference between two correlation coefficients (Cohen & Cohen, 1975, p. 53) and the observed correlations among these factors (Nuttall & Nuttall, 1975, p 132) it was found that these averaged correlations did not differ significantly from each other. Thus while the correlations between the father's Hostile Psychological Control and the boys' achievement related traits were higher than for the mother's Hostile Psychological Control, this difference was not significant.

For the Acceptance vs. Rejection parent-child relationship, the average correlation with the achievement related traits was .20 for mother's Acceptance and .24 for father's Acceptance. Again this difference was not statistically significant.

For the Lax Discipline vs. Firm Discipline parent-child relationship factor, the average correlation with the eight achievement related traits was -.20 for mothers' Lax Discipline and -.13 for the father's Lax Discipline. Again these correlations were not significantly different from each other.

Of the eight traits, Obedient and Law Abiding was most strongly affected by the parent-child relationships, with Works Hard and Effectively next most affected. Ambitious was third most affected by parent-child relationships. Least affected by the parent-child relationships was Self-Sufficient.

Results for the Girls

The second major set of hypotheses postulated that girls who perceived their parents, especially their mothers as Acceptant, Firm on Discipline, and low on Hostile Psychological Control would tend to have high scores on academic motivation traits. In order to test these hypotheses a correlational analysis similar to what was done for the boys was conducted. The results for the 300 girls are presented in Table 2.

Insert Table 2 about here.

Of the 48 correlations in Table 2, 46 were in the predicted direction. With 300 units of analysis, correlations of .11 or higher are significant at the .05 level so of the 48 observed correlations 31 were significant in the predicted directions and none were significant in the opposite directions.

The r-to-z average correlations were -.20 for both the father's and the mother's Hostile Psychological Control factors and the eight achievement traits. These average correlations were .30 and .25 for mother's and father's Acceptance vs. Rejection factors respectively. These correlations were not significantly different from each other.

On the other hand, the average correlations were -.08 and -.07 respectively for the mother's and father's Lax Discipline factor and the eight traits. Thus while the Hostile Psychological Control and the Acceptance factors did tend to correlate positively with achievement traits in girls, the parent's Lax or Firm Discipline did not significantly associate with the girl's achievement traits.

Table 2

Correlation Coeficients between CRPBI Factors and TEAM Variables among Girls[a]

Team Variables	Hostile Psych. Control		Acceptance		Lax Discipline	
	Mo	Fa	Mo	Fa	Mo	Fa
Feels Valued	-.22	-.22	.32*	.27	-.00	.02
Obedient, Law Abiding	-.30*	-.32*	.33*	.36*	-.25	-.26
Works Hard & Effectiv.	-.22	-.21	.37*	.35*	-.19	-.15
Feels Capable	-.32*	-.34*	.34*	.27	-.05	-.03
Confident Academically	-.06	-.05	.19	.09	.09	.10
Self-Sufficient	-.05	-.03	.10	.11	-.07	-.05
Likes School	-.23	-.21	.30*	.19	-.07	-.05
Ambitious	-.17	-.19	.41*	.33*	-.10	-.11

[a] n = 300 girls

* p .001

Again the trait of Obedient and Law Abiding was most affected by parent-child relationships, Works Hard and Effectively second most related and Ambitious third most related. Also again, Self-Sufficient was least related to parent-child relationships.

Results Summary

For boys it was found that parents who were low on Hostile Psychological Control, who were Acceptant, and who were Firm in their discipline tended to have sons with higher academic achievement related traits. There was no significant differences in the correlations observed between father's CRPBI factors and the mother's CRPBI factors with the TEAM academic achievement traits.

For girls, only the parent-child relationships of low on Hostile Psychological Control or high on Acceptance were significantly associated with achievement traits. The parent-child relationships of daughter with mother and daughter with father did not differ in their association with the achievement traits.

Discussion

There was considerable similarity in the patterns of relationships between boys and girls in the correlations between their achievement traits and their father's and mother's parent-child relationships. While there was a tendency for the Acceptance of the same sex parent to be more related to the achievement of the child, the differences in correlation averages were not significantly different at the .05 level.

In general then, it was found that children who had parents who

tended not to use Hostile Psychological Control techniques, and who Accepted their children more, tended to have more achievement motivated children. This was especially true for traits such as Works Hard and Effectively and Obedient and Law Abiding or the trait of Ambitiousness. For boys across the average of the eight traits, the parent-child dimension of Lax Vs. Firm Discipline was also related in that the more Firm the parental Discipline (especially the mother's) the more achievement oriented were the sons.

This general failure of the same-sex parent-child relationship correlations with achievement traits to be significantly stronger than the opposite-sex parent-child relationship correlations may indicate a fairly large degree of substitutability between parents. The same-sex bond does not seem to be especially important in this data for producing achieving children.

These findings are different from those of previous studies such as Crandall et al's where mothers of high achieving girls tended to be less loving and acceptant than mothers of low achieving girls. Father's in this study were perceived as behaving in similar ways as found in previous studies. Perhaps this change in the mother-daughter relationship is due to the effects of the new achievement norms for women. Possibly there is an age difference between Crandall's results and our own. It may be that girls who are treated coldly by their mothers when young become high achievers and are more accepted by their mothers during high school years.

On the whole, our findings are similar to the previous work done on boys and men. Accepting, firm, and non-use of hostile psychological control methods lead to, or at least are associated with, higher achievement.

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